

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-65. (Canceled)

66. (Currently Amended) An ~~amino acid~~ A molecule, comprising:

a peptide represented by an isolated amino acid sequence comprising SEQ ID NO: 1, the peptide optionally comprising at least one of the following characteristics: (a) being capable of binding to mannosylated lipoarabinomannan (ManLAM) binding antibodies;—and optionally [(b)] being capable of eliciting, upon immunization in a subject, production of ManLAM-binding antibodies.

67. (Currently Amended) The ~~amino acid~~ molecule of claim 66, wherein said ManLAM binding antibodies are anti-ManLAM antibodies.

68. (Currently Amended) The ~~amino acid~~ molecule of claim 66, wherein said ManLAM binding antibodies are monoclonal antibodies (mAbs).

69. (Currently Amended) The ~~amino acid~~ molecule of claim 68, wherein said mAbs are CS40 antibodies.

70. (Currently Amended) The ~~amino-acid~~ molecule of claim 66, which does not bind to antibodies directed against lipoglycans selected from the group consisting of non-mannosylated and low mannosylated lipoglycans.

71. (Currently Amended) The ~~amino-acid~~ molecule of claim 70, which does not bind to CS35 anti-LAM mAb, 735 anti-ploy α (2 \rightarrow 8)N-acetyl neuraminic acid mAb, and 2H1 anti-glucuronoxylomannan mAb.

72-77. (Cancelled)

78. (Withdrawn and Currently Amended) A method for diagnosing a mycobacterial infection in a subject, the method comprising:

(a) contacting said a sample from the subject with a an amino-acid molecule, the molecule comprising a peptide represented by an isolated amino acid sequence comprising SEQ ID NO:1, the peptide optionally comprising at least one of the following characteristics: i) being capable of binding to ManLAM-binding antibodies, and optionally [[ii]]] being capable of eliciting, upon immunization in a subject, production of ManLAM binding antibodies; and

(b) determining formation of a complex comprising said ~~amino-acid~~ molecule and ManLAM binding antibodies, if present in the sample,

wherein a positive determination indicates mycobacterial infection in the subject.

79. (Withdrawn and Currently Amended) A method for determining whether a subject has an active mycobacterial infection, the method comprising:

- (a) contacting a sample from said subject with a an amino acid molecule, the molecule comprising a peptide represented by an isolated amino acid sequence comprising SEQ ID NO: 1, the peptide optionally comprising at least one of the following characteristics: i) being capable of binding to ManLAM-binding antibodies, and optionally [[ii]]] being capable of eliciting, upon immunization in a subject, production of ManLAM binding antibodies;
- (b) determining level of complexes comprising said amino acid molecule and ManLAM binding antibodies; and
- (c) comparing said level to a standard,

wherein a level higher than the standard indicates active mycobacterial infection in the subject.

80. (Withdrawn and Currently Amended) A method for determining treatment efficacy in a subject having a mycobacterial infection, the method comprising:

- (a) contacting samples from said subject, from at least two discrete time points, with a an amino acid molecule comprising a peptide represented by an isolated amino acid sequence comprising SEQ ID NO: 1, the peptide optionally comprising at least one of the following characteristics: i) being capable of binding to ManLAM-binding antibodies, and optionally [[ii]]] being capable of eliciting, upon immunization in a subject, production of ManLAM binding antibodies; and

(b) determining level of complexes comprising said amino acid molecule and ManLAM binding antibodies in said samples,

wherein a difference in the level between the two time points is indicative of the effectiveness of the treatment.

81. (Currently Amended) A kit for diagnosing mycobacterial infection in a subject, the kit comprising:

an amino acid molecule comprising a peptide, the peptide represented by an isolated amino acid sequence comprising SEQ ID NO:1, the peptide optionally comprising at least one of the following characteristics: (a) being capable of binding to ManLAM-binding antibodies[[:] and optionally [[(b)]] being capable of eliciting, upon immunization of a subject, production of ManLAM binding antibodies.

82. (Currently Amended) A vaccine, comprising:

an immunologically acceptable carrier; and
as an active agent an amino acid a molecule comprising a peptide represented by an isolated amino acid sequence comprising SEQ ID NO:1, the peptide optionally comprising at least one of the following characteristics: (a) being capable of binding to ManLAM-binding antibodies[[:] and [[(b)]] optionally being capable of eliciting, upon immunization of a subject, production of ManLAM binding antibodies.

83. (Previously Presented) The vaccine of claim 82, wherein said ManLAM binding antibodies are anti-ManLAM antibodies.

84. (Currently Amended) The vaccine of claim 83, wherein the ~~amino-acid~~ molecule does not bind to antibodies directed against lipoglycans selected from non-mannosylated and low mannosylated lipoglycans.

85. (Currently Amended) The vaccine of claim 84, which ~~amino-acid~~ molecule does not bind to CS35 anti-LAM mAb, 735 anti-ploy $\alpha(2\rightarrow8)$ N-acetyl neuraminic acid mAb, and 2H1 anti-glucuronoxylomannan mAb.

86-91. (Cancelled)

92. (Withdrawn and Currently Amended) A method of immunization of a subject against mycobacterial infection, the method comprising comprises:

providing said subject with an immunizing amount of ~~an amino-acid~~ a-molecule comprising a peptide represented by an isolated amino acid sequence comprising SEQ ID NO: 1, the peptide optionally comprising at least one of the following characteristics:
(a) being capable of binding to ManLAM-binding antibodies[[;]] and optionally [[(b)]] being capable of eliciting, upon immunization of a subject, production of ManLAM binding antibodies.

93. (Withdrawn) The method of claim 92, wherein the amino acid molecule does not bind to antibodies directed against lipoglycans selected from non-mannosylated and low mannosylated lipoglycans.

94. (Withdrawn and Currently Amended) The method of claim 93, wherein the amino acid molecule does not bind to CS35 anti-LAM mAb, 735 anti-ploy $\alpha(2 \rightarrow 8)$ N-acetyl neuraminic acid mAb, and 2H1 anti-glucuronoxylomannan mAb.

95-100. (Cancelled)